PATENTS
Docket No. LT-155 CON

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	Michael K. Mayes
Application No.:		10/695,679 Confirmation No.: 5035
Filed	:	October 28, 2003
For	:	CIRCUITS AND METHODS FOR A VARIABLE OVERSAMPLE RATIO DELTA-SIGMA ANALOG-TO-DIGITAL CONVERTER
Group Art Unit	:	2819
Examiner	:	Jean Bruner Jeanglaude

Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, applicants hereby make the following documents of record in the above identified application:*

U.S. Patents

4,943,807	07/1990	Early et al.
4,972,436	11/1990	Halim et al.
5,144,308	09/1992	Norsworthy
5,187,482	02/1993	Tiemann et al.
5,757,299	05/1998	Noro et al.
6,124,815	09/2000	Lee et al.

* Applicants reserve the right to challenge the status of any of the cited documents as prior art.

6,140,950	10/2000	Oprescu
6,169,506	01/2001	Oprescu et al.
6,208,279	03/2001	Oprescu
6,285,306	09/2001	Zrilic
6,337,645	01/2002	Pflaumer

Other Documents

M. P. Donadio, "CIC Filter Introduction," downloaded from the Internet at http://www.dspguru.com/info/tutor/cic.htm, Jul. 18, 2000.

"Cascaded Integrator-Comb (CIC) Filter v. 1.0," Product Specification, LogiCore, Xilinx, Inc., Mar. 02, 2001.

G. Noriega, "Sigma-Delta A/D Converters - Audio and Medium Bandwidths," Technical Notes - DT3, RMS Instruments, downloaded from the Internet at http://www.rmsinst.com/dt3.htm, Feb. 1996.

"An Overview of Data Converters," Application Note AN100, Philips Semiconductors, Dec. 1991.

S. Park, "Principles of Sigma-Delta Modulation for Analog-to-Digital Converters," Communications Applications Manual, APR8, Motorola, DL411D/REV 1, 1993.

E. Dijkstra, et al., "On the Use of Modulo Arithmetic Comb Filters in Sigma Delta Modulators," IEEE Proc. ICASSP, pp. 2001-2004, Apr. 1988.

B. E. Boser, et al., "The Design of Sigma-Delta Modulation Analog-to-Digital Converters," IEEE Journal of Solid State Circuits, vol. 23, pp. 1298-1303, Dec. 1988.

J. C. Candy, "Decimation for Sigma Delta Modulation," IEEE Transactions on Communications, vol. COM-34, pp. 72-76, Jan. 1986.

J. C. Candy, et al., "Oversampling Delta-Sigma Data Converters - Theory, Design, and Simulation," IEEE Press, NY, pp. 1-25, 1992.

"ADC0820: 8-Bit High Speed □P Compatible A/D Converter With Track/Hold Function," datasheet, National Semiconductor, Jun. 1999.

"LTC1410: 12-Bit, 1.25 Msps Sampling A/D Converter with Shutdown," datasheet, Linear Technology, 1995.

"ADC0801/ADC0802/ADC0803/ADC0804/ADC0805: 8-Bit μP Compatible A/D Converters, datasheet, National Semiconductor, Nov. 1999.

"AD650: Voltage-to-Frequency and Frequency-to-Voltage Converter," datasheet, Analog Devices, 2000.

"LM231A/LM231/LM331A/LM331: Precision Voltage-to-Frequency Converters," datasheet, National Semiconductor, Jun. 1999.

"ALD500AU/ALD500A/ALD500: Precision Integrating Analog Processor," datasheet, Advanced Linear Devices, Inc., 1999.

"AD1170: High Resolution, Programmable Integrating A/D Converter," datasheet, Rev. A, Analog Devices, Aug. 1999.

"LTC2400: 24-Bit □Power No Latency ΔΣ™ ADC in SO-8," datasheet, Linear Technology, 1998.

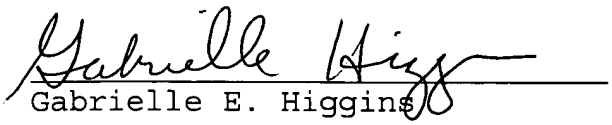
"LTC2410: 24-Bit No Latency ΔΣ ™ ADC with Differential Input and Differential Reference," datasheet, Linear Technology, 2000.

In accordance with 37 C.F.R. § 1.98 (d), copies of these documents, all of which were made of record in U.S. Patent Application No. 10/104,808, now U.S. Patent No. 6,639,526 from which priority is claimed under 35 U.S.C. § 120, are not submitted herewith.

It is respectfully requested that these documents be (1) fully considered by the Patent and Trademark Office during the examination of this application; and (2) printed on any patent that may issue on this application. Applicants request that a copy of Form PTO-1449, as considered and initialed by the Examiner, be returned with the next communication.

An early and favorable action is respectfully requested.

Respectfully submitted,



Gabrielle E. Higgins
Registration No. 38,916
Attorney for Applicant

FISH & NEAVE
Customer No. 1473
1251 Avenue of the Americas
New York, New York 10020-1104
Tel.: (650) 617-4000

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. LT-155 CON	APPLICATION NO. 10/695,679
	APPLICANT Michael K. Mayes	
	FILING DATE October 28, 2003	GROUP 2819

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,943,807	07/1990	Early et al.			
	4,972,436	11/1990	Halim et al.			
	5,144,308	09/1992	Norsworthy			
	5,187,482	02/1993	Tiemann et al.			
	5,757,299	05/1998	Noro et al.			
	6,124,815	09/2000	Lee et al.			
	6,140,950	10/2000	Oprescu			
	6,169,506	01/2001	Oprescu et al.			
	6,208,279	03/2001	Oprescu			
	6,285,306	09/2001	Zrilic			
	6,337,645	01/2002	Pflaumer			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIALS	
	M. P. Donadio, "CIC Filter Introduction," downloaded from the Internet at http://www.dspguru.com/info/tutor/cic.htm, Jul. 18, 2000.
	"Cascaded Integrator-Comb (CIC) Filter v. 1.0," Product Specification, LogiCore, Xilinx, Inc., Mar. 02, 2001.
	G. Noriega, "Sigma-Delta A/D Converters – Audio and Medium Bandwidths," Technical Notes – DT3, RMS Instruments, downloaded from the Internet at http://www.rmsinst.com/dt3.htm, Feb. 1996.

EXAMINER DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. LT-155 CON	APPLICATION NO. 10/695,679
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	APPLICANT Michael K. Mayes	
	FILING DATE October 28, 2003	GROUP 2819

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIALS	
	"An Overview of Data Converters," Application Note AN100, Philips Semiconductors, Dec. 1991.
	S. Park, "Principles of Sigma-Delta Modulation for Analog-to-Digital Converters," Communications Applications Manual, APR8, Motorola, DL411D/REV 1, 1993.
	E. Dijkstra, et al., "On the Use of Modulo Arithmetic Comb Filters in Sigma Delta Modulators," IEEE Proc. ICASSP, pp. 2001-2004, Apr. 1988.
	B. E. Boser, et al., "The Design of Sigma-Delta Modulation Analog-to-Digital Converters," IEEE Journal of Solid State Circuits, vol. 23, pp. 1298-1303, Dec. 1988.
	J. C. Candy, "Decimation for Sigma Delta Modulation," IEEE Transactions on Communications, vol. COM-34, pp. 72-76, Jan. 1986.
	J. C. Candy, et al., "Oversampling Delta-Sigma Data Converters – Theory, Design, and Simulation," IEEE Press, NY, pp. 1-25, 1992.
	"ADC0820: 8-Bit High Speed μP Compatible A/D Converter With Track/Hold Function," datasheet, National Semiconductor, Jun. 1999.
	"LTC1410: 12-Bit, 1.25 Msps Sampling A/D Converter with Shutdown," datasheet, Linear Technology, 1995.
	"ADC0801/ADC0802/ADC0803/ADC0804/ADC0805: 8-Bit μP Compatible A/D Converters, datasheet, National Semiconductor, Nov. 1999.
	"AD650: Voltage-to-Frequency and Frequency-to-Voltage Converter," datasheet, Analog Devices, 2000.
	"LM231A/LM231/LM331A/LM331: Precision Voltage-to-Frequency Converters," datasheet, National Semiconductor, Jun. 1999.
	"ALD500AU/ALD500A/ALD500: Precision Integrating Analog Processor," datasheet, Advanced Linear Devices, Inc., 1999.
	"AD1170: High Resolution, Programmable Integrating A/D Converter," datasheet, Rev. A, Analog Devices, Aug. 1999.
	"LTC2400: 24-Bit μPower No Latency $\Delta\Sigma^{TM}$ ADC in SO-8," datasheet, Linear Technology, 1998.
	"LTC2410: 24-Bit No Latency $\Delta\Sigma^{TM}$ ADC with Differential Input and Differential Reference," datasheet, Linear Technology, 2000.

EXAMINER DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.